ABSTRACT OF THE DISCLOSURE

A method and apparatus for measuring the location of objects arranged on a convex surface. A plurality of cameras is arranged in a stationary array about the surface, and is used to capture images of the objects. A parameterized model of the surface is developed using optimization techniques, and then the locations of the objects are established by triangulation. The method is applied to location of electrophysiological sensors on the head, for purposes of electroencephalographic source analysis, or for registration with other imaging modalities such as MRI (magnetic resonance imaging).